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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,714	03/14/2001	Volker Drexel	(Z) 00022 P US	5823
7590 05/09/2006			EXAMINER	
M. Robert Kestenbaum 11011 Bermuda Dunes NE Albuquerque, NM 87111			JOHNSTON, PHILLIP A	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Response to Rule 312 Communication</b>	<b>Application No.</b> 09/808,714	<b>Applicant(s)</b> DREXEL ET AL.	
	<b>Examiner</b> Phillip A. Johnston	<b>Art Unit</b> 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☒ The amendment filed on 17 January 2005 under 37 CFR 1.312 has been considered, and has been:

a) ☐ entered.

b) ☐ entered as directed to matters of form not affecting the scope of the invention.

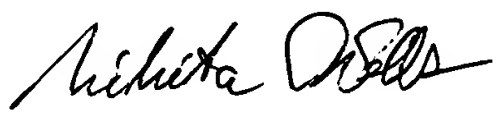
c) ☐ disapproved because the amendment was filed after the payment of the issue fee.

Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.

d) ☐ disapproved. See explanation below.

e) ☒ entered in part. See explanation below.

*Applicant requested that a complete recitation of the features and limitations of claims 46 and 47 be included in the "Reasons For Allowance", to be accomplished by examiners amendment.*

  
NIKITA WELLS  
PRIMARY EXAMINER 05/08/06

***Detailed Action***

***Examiners Amendment***

1. An examiner's amendment to the record appears below in response to "Comments on Statement of Reasons for Allowance", filed 1-17-2006, wherein the applicant requested that a complete recitation of the features and limitations of claims 46 and 47 be included in the "Reasons For Allowance".

Authorization for this examiner's amendment was given in a telephone interview with Robert Kestenbaum on 1-5-2006. The changes made to the "examiner's statement of reasons for allowance" below are underlined.

***Examiner's statement of reasons for allowance***

The following is an examiner's statement of reasons for allowance:

2. Claim 46 is allowed because prior art fails to show a detector system for a particle beam apparatus having an optical axis defining a direction and a beam guiding tube, said detector system comprising: a target structure arranged within the beam path of said particle beam apparatus, said target structure having a near axis region adjacent to said optical axis and a region remote from said optical axis, said near axis region consisting of a material being strongly electron converting, said region remote from said optical axis being off-set in the direction of said optical axis from said near

axis region, an electron detector system for detecting conversion electrons emitted from said near axis region, said electron detector system being arranged, measured in the direction of said optical axis, closer to said near axis region than to said region remote from said optical axis, said electron detector system having an electrode being at a positive electrostatic potential compared to said beam guiding tube, said electrostatic potential generating a strongly localized field within said beam guiding tube so that conversion electrons emitted from said near axis region are extracted by said localized field towards said electron detector system, whereby conversion electrons emitted in other regions than said near axis region are not extracted towards said electron detector system, and a deflecting system comprising at least an electrostatic deflection field and a magnetic deflecting field, said electrostatic and magnetic deflecting fields being aligned perpendicular to each other.

Claim 47 is allowed because prior art fails to show a particle beam apparatus comprising: a particle source emitting charged particles, a particle optical system defining a primary particle beam of charged particles emitted by said particle source to irradiate a sample with said primary particle beam, said particle optical system defining an optical axis and having a beam guiding tube, and a detector system detecting charged particles emitted by said sample due to said irradiation of said sample with said primary particle beam, said detection system comprising: a target structure arranged within the beam path of said particle beam apparatus, said target structure having a near axis region adjacent to said optical axis and a region remote from said optical axis, said near axis region consisting of a material being strongly electron converting and

said region remote from said optical axis consisting of a weakly electron converting material, an electron detector system for detecting conversion electrons emitted from said near axis region, and a deflection system comprising at least an electrostatic deflection field and a magnetic deflecting field, said electrostatic deflection field and said magnetic deflection field being aligned perpendicular to each other, and said deflection system deflecting particles emitted from said sample on varying regions of said target structure.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (571) 272-2475. The examiner can normally be reached on Monday-Friday from 6:30 am to 3:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor John Lee can be reached at (571) 272-2477. The fax phone number for the organization where the application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

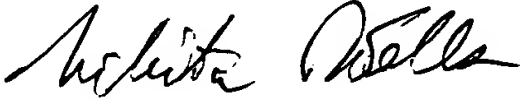
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Status information for unpublished applications is available through Private PAIR only.

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PJ  
May 4, 2006

  
NIKITA WELLS  
PRIMARY EXAMINER 05/08/06